

## RECORD/PLAY HEADS



888-1200-1400 SERIES 2000-3200 SERIES 3600-4400 SERIES



3000-2200 SERIES 3100 SERIES 4950 SERIES



5130 SERIES 5200 SERIES



5330 SERIES 5400 SERIES



9000 SERIES 9700 SERIES 9900 SERIES



9430 SERIES 9100 SERIES 9200 SERIES

## STUDIO HEADS



9340-9460 SERIES 9680-9980 SERIES 9990 SERIES

## ERASE HEADS



1400-2200 3100-3300-3500 3370-3470-3590  
3600-4400 SERIES 3700-9120-9220 SERIES 9965-9995 SERIES

## COMBO HEADS



6025-6125 6000-6100

# MAGNETIC TAPE HEAD SPECIFICATIONS



## NORTRONICS® COMPANY, INC.

### WORLD'S LEADER IN MAGNETIC TAPE HEADS

**NORTRONICS** magnetic tape heads are designed to offer the highest quality performance and long dependable service. The many features of **NORTRONICS** heads include:

Fine laminated, precision-lapped, low loss core structures — deposited quartz gaps, resulting in exceptionally clean sharp gap edges — hyperbolic face contours for intimate tape-to-gap contact without the need for pressure pads, but designed to allow use with pressure pads as well — highly polished faces to greatly reduce oxide build-up and the need for frequent head cleaning — compatible mechanically and electrically with older model **NORTRONICS** heads — superb shielding against external magnetic fields.

**NORTRONICS**, the chief exponent and largest manufacturer of audio, instrumentation and digital heads, offers a complete line of heads available in either **PROFESSIONAL**, **PREMIUM** or **STANDARD** laminated versions. Included are "COMBO" heads which combine Record/Play/Erase into one case, and the new **CASSETTE** heads offering all of the features above.

**NORTRONICS'** continued research and development into magnetic tape head design improvements, has resulted in the introduction of the 9000 **SERIES** of Professional Heads.

**PROFESSIONAL** heads in the 9000 Series are designed with wider poles for increased frequency response, and deeper gaps for extended wear life. Record/Play heads with Alfenol cores are available for high-speed duplicating applications requiring extended wear life without loss of performance. Erase heads with Ferrite cores are available for increased efficiency and longer wear life. Also introduced in the 9000 Series, are 3, 4, 8, 12 and 16 Channel Studio heads for 1/2-inch to 2-inch tape applications.

The **PREMIUM** heads are a fully professional line of tape heads, giving unsurpassed performance for broadcast, studio and exacting semi-professional applications. Long life and extended high frequency response at slower tape speeds are among the benefits.

The **STANDARD** versions offer improved high frequency performance over that of the conventional solid-core heads. The added features of hyperbolic all-metal faces provide intimate tape-to-gap contact and reduce oxide build-up.

### MOUNTING STYLES

The wide variety of available mounting styles, track types and impedances make it possible to find a **NORTRONICS** head to suit almost any application. **NORTRONICS** heads are supplied in two basic mounting styles, **NO MOUNT** and **REAR MOUNT**. **REAR MOUNT** heads have a rear mounting stud with 12-inch shielded wires. **NO MOUNT** heads have no brackets, screws or wires attached to them and are used directly in several popular brands of tape recorders. When required, **NO MOUNT** heads may be quickly adapted to **SIDE MOUNT** and **BASE MOUNT** styles by using the proper **NORTRONICS** Quick-Kits, available where **NORTRONICS** tape heads are sold. Complete, detailed instructions are included with each Quick-Kit.

### REPLACEMENT OR CONVERSION

**NORTRONICS** heads are the ideal selection for replacement of existing heads, converting to 2 or 4-track stereophonic sound or 4 or 8-track quadrasonic sound, and for installation on new tape equipment. In the majority of cases, replacements will be made on a direct basis. It is often possible to interchange head types to modernize equipment. An example of this would be substituting a 4-track stereo head for a 2-track stereo head to bring the recorder up to date, or substituting a Full-track monophonic head for a 2-track monophonic head to make a recorder suitable for broadcast purposes.



Head Description Hyperbolic Metal Face Laminated Cores	Nortronics Model Number (No Mount)	Case Size	O E M Model Number	Head Function	Application (see notes)	1 KHz Inductance MHY	1 KHz Impedance OHMS	Maximum Bias Frequency KHz	DC Resistance OHMS	Gap Spacer MILS	1 KHz Crosstalk Rejection DB	Average 7.5 IPS Constant Current R/P characteristics, using 3M190 tape, peak biased at 1 KHz and re- corded 12 db below tape saturation					NRZ Digital Read/Write Data at 7.5 IPS, using 3M177 Tape, 400 BPI			
												60 KHz Peak Bias MA	Bias Voltage RMS 60 KHz VOLT	Record Current UA	1 KHz Output RMS MV	10KHz/1KHz Ratio	Write Current PP MA	Read Output PP MV	200 BPI	Max. Read Pack. Den. BPI
Premium 3 Channel 043 In. Track Width 100 In. C. to C. Track Spacing	57011	B	P-B3Q7K	Record/Play	3	340	2000	100	800	0.1	55	0.25	35	35	1.8	+1	1.6	36	1600	
	57021	B	P-B3Q4K	Record/Play	6	100	650	800	260	0.1	55	0.70	18	60	0.9	0	2.7	18	1600	
	57031	B	P-B3Q4R	Record Only	8	50	400	250	260	0.5	55	0.65	7.5	60	-	-	2.7	18	400	
	57071	B	P-B3Q6K	Record/Play	5	200	1300	120	450	0.1	55	0.40	20	50	1.3	+1	2.3	26	400	
	57110	B	P-B3Q8R	Record Only	7	10	70	500	100	0.5	55	1.7	3.3	200	-	-	8.0	9	400	
8-Track Stereo 020 (.5800) .022 (.5810-13) In. Tr. W. .127 In. C. to C. Track Spacing	58001	B	B2L7K	Record/Play	3	400	2500	100	700	0.1	55	0.44	27	20	0.9	4	1.2	18	1600	
	5810	B	P-B2L8R	Record Only	7	10	75	750	42	0.5	55	1.1	2.6	150	-	-	4.0	6	400	
	5813	B	P-B2L4R	Record Only	8	50	400	250	220	0.5	55	0.5	8	40	-	-	1.8	10	400	
8 Track 4 Channel 021 In. Track Width .0635 In. C. to C. Track Spacing	5832	B	P-BQL6K	Record/Play	3	200	1400	150	500	0.1	35	0.35	25	35	0.7	0	1.6	14	1600	
	5833	B	P-BQL4K	Record/Play	6	100	700	150	250	0.1	35	0.55*	25*	50	0.5	0	2.3	10	1600	
	5834	B	P-BQL4R	Record Only	8	50	300	300	250	0.5	35	0.6*	24*	50	-	-	2.3	10	400	
	5835	B	P-BQL8R	Record Only	7	10	65	500	60	0.5	35	2.5*	10*	150	-	-	4.0	6	400	
	5836	B	P-BQL14R	Record Only	7	2.5	20	800	16	0.5	35	4*	4.5*	300	-	-	8.0	4	400	

(1) Add 50 to number for Rear Mount

(2) At 100 KHz

(1) Add 50 to number for Rear Mount

(\*) @ 100 KHz

## “Combo” Heads

Head Description Metal Face Laminated Cores	Nortronics Model No. (No Mount)†	Case Size	O. E. M. Model No.	Head Function	1 KHz Inductance MHY	1 KHz Impedance OHMS	Maximum Bias Frequency KHz	DC Resistance OHMS	Gap Spacer MILS	1 KHz Crosstalk Rejection DB	Average 7.5 IPS Constant Current R/P characteristics, using 3M190 tape, peak biased at 1 KHz and re- corded 12 db below tape saturation					ERASE				
											60 KHz Peak Bias MA	Bias Voltage RMS 60 KHz VOLT	Record Current UA	1 KHz Output RMS MV	10KHz/1KHz Ratio DB	1 KHz Inductance MHY	60 KHz Impedance OHMS	Operating Erase Current MA	DC Resistance OHMS	60 KHz RMS Operating Voltage VOLT
4 Track Stereo .043 In. Track Width 136 In. C. to C. Track Spacing	6000	B	P-A2Q17K	R/P/E	400	2500	100	390	0.1	55	0.25	35	35	1.8	+1	80	30000	3-5	270	90-150
	6002	B	P-A2Q47K	R/P/E	400	2500	100	390	0.1	55	0.25	35	35	1.8	+1	10	2800	10-15	40	28-42
	6003	B	U-A2Q22K40	R/P/E	800	5000	80	700	0.1	55	0.30	45	45	2.4	-3	0.13	40	80-140	2	3-6
	6004	B	P-A2Q44R	R/E	50	400	250	90	0.5	55	0.65	7.5	60	-	-	10	2800	10-15	40	28-42
	6005†	B	V-A2Q46K2	R/P/E	200	1300	120	200	0.1	55	0.40	25	50	1.3	+1	10	2800	10-15	40	28-42
	6006	B	P-A2Q48R	R/E	10	70	500	32	0.5	55	1.3	30	140	-	-	10	2800	10-15	40	28-42
4-Track Mono .043 In. Track Width	6009	B	A2Q42N2	R/P/E	500	3300	100	700	0.2	55	0.15	25	23	3.0	-3	10	2800	10-15	40	28-42
	6025	B	AIQC22K	R/P/E	800	5000	80	700	0.1	-	0.30	45	25	2.4	-3	0.13	40	80-140	2	3-6
2 Track Stereo .080 In. Track - 0.16 In. C. to C.	6026	B	AIQC47K	R/P/E	400	2500	100	390	0.1	-	0.42	35	35	1.6	-3	10	2800	10-15	40	28-42
	6100	B	P-A2H47K	R/P/E	400	2500	100	410	0.1	55	0.33	40	40	2.4	+1	8	2000	16-24	35	32-48
2 Track Mono .080 In. Track Width	6101	B	P-A2H44R	R/E	50	320	200	130	0.5	55	0.70	9	75	-	-	8	2000	16-24	35	32-48
	6125	B	AIHC11K	R/P/E	800	5000	60	400	0.1	-	0.4	65	30	3.4	-3	80	25000	4.5-7.0	205	100-150
	6126	B	P-AIHC44R	R/E	50	320	200	70	0.5	-	0.70	9	75	-	-	8	2000	16-24	35	32-48
	6127	B	AIHC47K	R/P/E	400	2500	100	165	0.1	-	0.33	40	40	2.4	+1	8	2000	16-24	35	32-48
	6128	B	V-AIHC46K2	R/P/E	200	1300	100	245	0.1	-	0.40	30	60	1.8	+1	8	2000	16-24	35	32-48
	6129	B	AIHC47R	R/E	200	1300	150	370	0.5	-	0.30	22	40	-	-	8	2000	16-24	35	32-48
8 Tr. (.020 In.) Stereo	6800	B	ZJ2L47K	R/P/E	425	2500	100	680	0.1	50	-	-	22	0.7	12	14	3000	12	45	35
2Tr. (.080 In.) Spec. Mono	7457	B	AIHC47R	R/E	200	1300	150	370	0.5	-	0.30	22	40	-	-	8	2000	16-24	35	32-48

(†) Add 50 to number for Rear Mount

## Special Heads

Head Description Hyperbolic Metal Face Laminated Cores	Nortronics Model Number	Case Size	O E M Model Number	Head Function	Application (see notes)	1 KHz Inductance MHY	1 KHz Impedance OHMS	Maximum Bias Frequency KHz	DC Resistance OHMS	Gap Spacer MILS	1 KHz Crosstalk Rejection DB	Average 7.5 IPS Constant Current R/P characteristics, using 3M190 tape, peak biased at 1 KHz and re- cording 12 db below tape saturation				
												60 KHz Peak Bias MA	Bias Voltage RMS 60 KHz VOLT	Record Current UA	1 KHz Output MV	10KHz/1KHz Ratio
2-Tr. (.080 In.)St. (.160 C.C.)RearMt Webcor Pole	7250 7400	B	B2H2K-R6	Record/Play	--	800	5000	60	720	0.1	55	0.4	65	30	3.4	-1
2 Tr. (.090 In.) Mono Base Mt.	7401	G	GMH3L-B3	Record/Play	--	400	2500	80	350	0.16	--	0.8	25	30	3.0	-9
2-Tr. (.080 In.) Mono Base Mt. Trk. Up	7405U	G	TIHY7K24-9B29UX2	Record/Play	--	400	2500	100	165	0.1	--	0.6	45	40	2.2	-3
2-Tr. (.080 In.) Mono Base Mt. Trk. Down	7405D	G	TIHY7K24-9B29DX2	Record/Play	--	400	2500	100	165	0.1	--	0.6	45	40	2.2	-3
2Tr. (.080In)St. (.160In.C.C)No Mt.	7406	G	GIHY5L26-NO	Record/Play	--	450	3000	100	350	.160	--	.30	35	.023	3.0	0
2 Tr. (.080 In.) Mono No Mt.	7410	B	BIHC27L-NO	Play	12	4500	18K	--	2.5K	0.16	--	--	--	--	10	0
2 Tr. (.080 In.) Mono No Mt.	7411	B	BIHC27L36-NO	Play	13	4500	18K	--	2.5K	0.16	--	--	--	--	10	0
2 Tr. (.080 In.) Mono Rear Mt.	7450	B	BIHY2K-R6	Record/Play	--	800	5000	60	720	0.1	--	0.4	65	30	3.4	-1
3 Tr. (.080 In.) Mono Rear Mt.	7458	C	XPCIHC7K-R7	Record/Play	--	400	2500	100	165	.100	--	.33	40	.040	2.4	2
4 Tr. (.043 In. St. (.136C.C.) No Mt.	7600	G	G2Q2K-NO	Record/Play	--	800	5000	80	700	0.1	55	0.3	45	25	2.4	2
4 Tr. (.043In.)St. (.136C.C.)BaseMt.	7601	B	P-R2Q7K7-B6	Record/Play	--	400	2500	100	390	0.1	55	0.25	35	35	1.8	+1
4 Tr. (.043In)St. (.136In.C)No Mt.	7603	G	G2Q6K-NO	Record/Play	--	200	1300	120	200	.100	55	.70	25	.050	1.2	-3
4 Tr. (.043 In.) Mono No Mt.	7610	B	P-BIQY6F2-N4	Play	--	200	1400	--	135	0.05	--	--	--	--	1.2	+1
4-Tr. (.043In)St. (.136In.C.C.)No Mt.	7620	B	CSQ9N4-N2	Record/Play	--	650	5000	50	600	0.2	55	0.03	45	20	2.5	-3
4 Tr. (.043In)St. (.136In.C.C)RearMt	7654	B	B2Q7K-R6	Record/Play	--	400	2500	100	390	.100	55	.42	35	35	1.6	3
4-Tr. (.043 In.) St. (.136 C.C.) No Mt.	7700	G	P-62Q6K-N	Record/Play	--	200	1300	120	200	0.1	55	0.40	25	50	1.3	+1



● MAGNETIC TAPE HEAD SPECIFICATIONS

● Record/Play, Playback Only, and Record Only Heads

Head Description Hyperbolic Metal Face Laminated Cores	Nortronics Model Number (No Mount)†	Case Size	O. E. M. Model Number	Head Function	Application (see notes)	Average 7.5 IPS Constant-Current R/P characteristics, using 3M190 tape, peak biased at 1 KHz and re- corded 12 db below tape saturation.										NRZ Digital Read/Write Data at 7.5 IPS, using 3M777 Tape, 400 BPI			
						1 KHz Inductance MHY	1 KHz Impedance OHMS	Maximum Bias Frequency KHZ	DC Resistance OHMS	Gap Spacer MILS	1 KHz Crosstalk Rejection DB	60 KHz Peak Bias MA	Bias Voltage RMS 60 KHz VOLT	Record Current UA	1 KHz Output RMS MV	10KHZ/1KHZ Ratio DB	Write Current PP MA	Read Output 200 BPI MV	Max. Read Pack. D BPI
Standard 4-Track Stereo .043 In. Track Width 136 In. C. to C. Track Spacing	1000†	B	B2Q2K	Record/Play	1	800	5000	80	700	0.1	55	0.30	45	25	2.4	-3	1.1	50	1600
	1001†	B	B2Q7K	Record/Play	3	400	2500	100	390	0.1	55	0.42	35	35	1.6	-3	1.6	32	1600
	1002†	B	B2Q4K	Record/Play	6	100	650	140	90	0.1	55	1.1	20	70	0.8	-4	3.1	16	1600
	1003	B	B2Q4R	Record Only	8	50	400	250	90	0.5	55	0.65	7.5	60	--	--	2.7	16	400
	1005	B	B2Q7R	Record Only	4	200	1300	120	390	0.5	55	0.26	20	38	--	--	1.7	32	400
	1007	B	B2Q6K	Record/Play	5	200	1300	120	200	0.1	55	0.40	25	50	1.3	+1	2.2	26	1600
	1008	B	B2Q6N2	Record/Play	6	110	700	100	210	0.2	55	0.5	12	50	1.2	-3	2.2	24	800
	1009	B	B2Q2N2	Record/Play	3	500	3300	100	700	0.2	55	0.15	25	23	3.0	-3	1.1	60	800
Premium 4-Track Stereo .043 In. Track Width 136 In. C. to C. Track Spacing	1200†	B	P-B2Q2K	Record/Play	1	800	5000	80	700	0.1	55	0.16	45	25	2.6	+1	1.1	52	1600
	1201†	B	P-B2Q7K	Record/Play	3	400	2500	100	390	0.1	55	0.25	35	35	1.8	+1	1.6	36	1600
	1202†	B	P-B2Q4K	Record/Play	6	100	650	140	90	0.1	55	0.70	18	70	0.9	0	3.1	18	1600
	1203†	B	P-B2Q4R	Record Only	8	50	400	250	90	0.5	55	0.65	7.5	60	--	--	2.7	18	400
	1205†	B	P-B2Q7R	Record Only	4	200	1300	120	390	0.5	55	0.26	20	38	--	--	1.7	36	400
	1207†	B	P-B2Q6K	Record/Play	5	200	1300	120	200	0.1	55	0.40	25	50	1.3	+1	2.2	26	1600
	1210	B	P-B2Q8R	Record Only	7	10	70	500	32	0.5	55	1.3	3.0	140	--	--	6.2	9	400
	1221	B	P-B2Q7F	Play Only	2	500	3300	100	390	0.05	55	--	--	--	1.8	+2	--	--	--
		B	P-B2Q8F	Record/Play	--	20	150	250	32	.05	55	1.6	7	140	.4	0	6.2	8	1600
Standard 2-Track Stereo .080 In. Track Width 160 In. C. to C. Track Spacing	1800†	B	B2H2K	REFER TO 2000															
	1801†	B	B2H7K	REFER TO 2001															
	1802†	B	B2H4K	REFER TO 2002															
Premium 2-Track Stereo .080 In. Track Width .160 In. C. to C. Track Spacing	2000†	B	P-B2H2K	Record/Play	1	800	5000	60	720	0.1	55	0.25	55	30	3.6	-1	1.3	72	1600
	2001†	B	P-B2H7K	Record/Play	3	400	2500	100	410	0.1	55	0.33	40	40	2.4	+1	1.8	48	1600
	2002†	B	P-B2H4K	Record/Play	6	100	650	150	130	0.1	55	0.80	20	80	1.2	0	3.6	24	1600
	2003†	B	P-B2H4R	Record Only	8	50	320	200	130	0.5	55	0.70	9	75	--	--	3.4	24	400
	2005†	B	P-B2H7R	Record Only	4	200	1300	150	370	0.5	55	0.30	22	40	--	--	1.8	48	400
	2007†	B	P-B2H6K	Record/Play	5	200	1300	100	245	0.1	55	0.40	30	60	1.8	+1	2.7	36	1600
	2010	B	P-B2H8R	Record Only	7	10	72	500	27	0.5	55	1.7	3.3	200	--	--	9.0	12	400
	2021	B	P-B2H7F	Play Only	2	450	3300	80	410	0.05	55	--	--	--	2.2	+2	--	--	--
		B	P-B2H7F	R/P Dual	6	100	650	150	130	0.1	55	0.80	20	80	1.2	0	--	--	--
		B	P-B2H4K	Impedance	3	400	2500	100	410	0.1	55	0.33	40	40	2.4	+1	--	--	--
Premium 2-Track Mono .080 In. Track Width Track .040 In. Off Center	2600	B	P-B1HY2K	Record/Play	1	800	5000	60	400	0.1	--	0.25	55	30	3.6	+1	1.3	72	1600
	2601	B	P-B1HY7K	Record/Play	3	400	2500	100	165	0.1	--	0.33	40	40	2.4	+1	1.8	48	1600
	2602	B	P-B1HY4K	Record/Play	6	100	650	150	70	0.1	--	0.80	20	80	1.2	0	3.6	24	1600
2603	B	P-B1HY4R	Record Only	8	50	320	200	70	0.5	--	0.70	9	75	--	--	3.4	24	400	
Standard 2 Track Mono .080 In. Track Width	3000†	G	G1H2K	Record/Play	1	800	5000	60	400	0.1	--	0.4	65	30	3.4	-3	1.3	70	1600
	3001†	G	G1H7K	Record/Play	3	400	2500	100	165	0.1	--	0.6	45	40	2.2	-3	1.8	44	1600
	3002†	G	G1H4K	Record/Play	6	100	650	150	70	0.1	--	1.1	20	80	1.1	-4	2.7	22	1600
2-Track Mono .090 In. Center Track Cyl. Metal Face Solid Cores	3100	G	GMH1L	Record/Play	1	1000	6300	60	625	0.16	--	0.65	60	22	5.0	-9	1.0	100	800
	3101	G	GMH3L	Record/Play	3	400	2500	80	350	0.16	--	0.8	25	30	3.0	-9	1.3	60	800
Premium 2-Track Mono .080 In. Track Width	3200†	G	P-G1H2K	Record/Play	1	800	5000	60	400	0.1	--	0.25	55	30	3.6	+1	1.3	72	1600
	3201†	G	P-G1H7K	Record/Play	3	400	2500	100	165	0.1	--	0.33	40	40	2.4	+1	1.8	48	1600
	3202†	G	P-G1H4K	Record/Play	6	100	650	150	70	0.1	--	0.80	20	80	1.2	0	3.6	24	1600
	3203†	G	P-G1H4R	Record Only	8	50	320	200	70	0.5	--	0.70	9	75	--	--	3.4	24	400
	3205†	G	P-G1H7R	Record Only	4	200	1300	150	370	0.5	--	0.30	22	40	--	--	1.8	48	400
Premium Full-Track .260 In. Track Width	4100	B	SLFH3L	REFER TO 9111															
	4101	B	SLFH4R	REFER TO 9105															
	4102	B	SLFH4L	REFER TO 9110															
	4103	B	SLFH7R	REFER TO 9103															
Min. L .024 In. Tr. Wd. Rr. Mt. Min. L .042 In. Tr. Wd. (Bs.) Mt. Min. L .042 In. Tr. Wd. Rr. Mt. Min. M .070 In. Tr. Wd. No. Mt. Min. M .070 In. Tr. Wd. Rr. Mt.	4950	M	L24R8L5	Record/Play	9	40	250	150	125	0.16	--	0.65	8	50	0.4	0	2.2	8	800
	4951	M	AL42RIL3	Record/Play	10	400	2500	100	560	0.16	--	0.3	40	24	1.0	0	1.1	20	800
4952	M	L42R8L	Record/Play	11	80	500	200	128	0.16	--	0.7	16	60	1.0	0	3.1	18	800	
4910	M	M70R4L3	Record/Play	--	20	125	150	80	0.16	--	2.0	4.0	100	0.5	--	--	--	--	
4954	M	M70R4L4	Record/Play	--	20	150	150	80	0.16	--	2.0	7	10	.75	--	--	--	--	
Cassette 2-Track Mono .056 In. Track Width	5130	W	W1R6F-A	Record/Play	--	200	1300	--	200	.05	--	0.3 *	20	35	0.5	-12	1	9	1600
	5131	W	W1R8N-A	Record Only	--	10	75	--	40	0.2	--	1.7 *	4	120	--	--	7	3.6	800
Cassette 2-Track Dual Channel .056 In. Track Width 088 In. C. to C. Track Spacing	5200	W	W2R6F -A	Record Play	--	200	1300	--	200	0.05	50	0.3 *	20	35	0.5	-12	1	9	1600
	5201	W	W2R8N-A	Record Only	--	10	75	--	40	0.2	50	1.7 *	4	120	--	--	7	3.6	800
	5202	W	W2R8K -A	Record/Play	--	20	140	--	40	0.1	50	1.5 *	6	100	.12	-18	7	3.6	1600
	5203	W	W2R6N-A	Record Only	--	100	700	--	175	0.2	50	0.3 *	10	30	--	--	2	13	800
	5204	W	W2R6R -A	Record Only	--	100	700	--	175	0.2	50	0.4 *	16	40	--	--	2	13	400
	5205	W	W2R8F -A	Record/Play	--	20	140	--	40	0.05	50	1.8 *	7	110	.14	-12	6	2.5	1600
Cassette 4-Track Stereo .020 In. Tr. Wd. .035 In. C. to C.	5230	W	W2J6F	Record/Play	--	160	1200	--	430	0.05	--	0.40	18	30	0.22	-12	--	--	--
	5232	W	W2J4F	Record/Play	--	80	600	--	235	0.05	--	0.60	12	45	0.14	-12	--	--	--
Cassette 4-Track 4 Channel (Quadrasonic Sound)	5400	W	W4J4F-A	Record/Play	--	80	600	--	235	0.05	25	0.6 *	12	45	.14	-12	2	3	1600
	5401	W	W4J8N-A	Racord Only	--	10	100	--	62	0.2	25	1.6 *	3.5	130	--	--	7.5	2	800
	5410	W	PW4J4F-A	Record/Play	14	--	600	--	235	0.05	60	0.6	12	45	.14	-12	2	3	1600
	5411	W	PW4J8N-A	Record Only	14	10	100	--	62	0.2	60	1.6	3.5	130	--	--	7.5	2	800
Premium 4-Track 4-Channel .037 In. Track Width .071 In. C. to C. Track Spacing (Quadrasonic Sound)	5601†	B	P-BQQ4R	Record Only	8	50	320	150	220	0.5	50	0.6	7	60	--	--	2.7	14	400
	5602†	B	P-BQQ4K	Record/Play	6	100	600	100	220	0.1	50	0.7	15	60	0.7	0	2.7	14	1600
	5603†	B	P-BQQ7K	Record/Play	3	400	2200	80	690	0.1	50	0.3	30	34	1.4	0	1.5	28	1600
	5604	B	P-BQQ23R	Record Only	7	12	75	500	55	0.5	50	2.0	4	110	--	--	5.0	7	400
	5605	B	P-BQQ5K	Record/Play	6	4	25	500	24										

(†) Add 50 to number for Rear Mount

\* 1.875 IPS & 3M272 Tape



# ERASE HEADS

Head Description Full Metal Face	STD. No. Mt. Model No.	Case Size	O.E.M. Model Numbers	Application (see notes)	1 KHz Inductance MHY	60 KHz Impedance OHMS	DC Resistance OHMS	100 KHz Operating Voltage VOLT	Operating Erase Current ** MA
4 Track Stereo	14001	SSSEQ1 - N9			80	30000	270	90-150*	3-5
	1400L	LLSEQ1 - N2			80	30000	270	90-150*	3-5
	14011	SSSEQ4 - N9			10	2800	40	28-42*	10-15
	1401L	LLSEQ4 - N2			10	2800	40	28-42*	10-15
	1402	SSSEQ2 - N9			0.13	40	2	3-6*	80-140
	1404	SSSEQ3 - N9			55	17000	200	70-120*	4-8
	1407	SSSEQ7 - N9			30	8000	72	50-85*	7-11
2-Track Stereo	1408	SSSEQ8 - N9			2.0	500	6	15-25*	30-50
	22001	SSSEH1 - N9			80	25000	205	100-150*	4.5-7.0
	2200L	LLSEH1 - N2			80	25000	205	100-150*	4.5-7.0
	22011	SSSEH4 - N9			8	2000	35	32-48*	16-24
	2201L	LLSEH4 - N2			8	2000	35	32-48*	16-24
2-Track Mono	2202	SSSEH2 - N9			0.20	50	2	5-8*	100-150
	2203	SSSEH9 - N9			4	800	17	20-30*	20-25
	36001	SSEMH1 - N9U			80	25000	205	100-150*	4.5-7.0
	3600L	LSEMH1 - N4			80	25000	205	100-150*	4.5-7.0
	36011	SSEMH4 - N9U			8	2000	35	32-48*	16-24
Full-Track	3601L	LSEMH4 - N4			8	2000	35	32-48*	16-24
	3602	SSEMH2 - N9U			0.20	50	2	5-8*	100-150
	3604	SSEMH9 - N9U			4	800	17	20-30*	20-25
	44001	SSEMF1J - N9			40	12000	88	100-150*	10-15
	4400L	LSEMF1 - N2			40	12000	88	100-150*	10-15
Miniature "M" Series	44011	SSEMF4J - N9			3.6	1000	25	32-48*	32-48
	4401L	LSEMF4 - N2			3.6	1000	25	32-48*	32-48
	4402	SSEMF9J - N9			2.6	600	20	30*	50
	4408	SSEMF8J-B			5	1200	25	32*	26*
	4953	M90634			16	4000	315	50*	12*
Cassette 2 Track 2 Channel	5210	CW2ER3-A			2		12	20	16
	5211	CW2ER4-A			12		100	53	6.1
Miniature Rear Mount	5350	ML42E6U			5	1200	38	32-48*	28-42

\* Add 50 to number for rear mount

\*\* @ 60 KHz

For 60 db erasure of saturated tape

## SPECIAL ERASE

2 Track Mono	7407	SSEMH1A			50	25000	160	100-150*	4.5-7.0
Webcor Assembly	7408	SSEMH1B			50	25000	160	100-150*	4.5-7.0
7500									
2-Track Stereo Base Mt.	7708	SSEEC2			19	4400	45	40-65*	11-17
4-Track Mono Base Mt.	7720	RE-50 KIT			10	3000	38	28-42*	10-15

\* @ 60 KHz

## PROFESSIONAL ERASE (B CASE)

Full Track	8101	B1EF1J - NO			40	12000	88	160-200	10-15
	8102	B1EF2J - NO			0.085	24	1.3	10-14	250-350
	8104	B1EF4J - NO			3.6	1000	25	50-70	32-48
	8105	B1EF5J - NO			0.6	250*	4	20-30	80-100
	8106	B1EF6J - NO			6	1800	30	75-95	30-40
	8109	B1EF9J - NO			2.6	600*	20	43-57	42-57
	8110	B1EF9 - 3N2			2.6	600*	20	50-70	42-52
2-Track Stereo	8301	B2EH1 - NO			50	20000	205	160-200	4.5-7.0
	8302	B2EH2 - NO			0.2	50	2	8-15	100-150
	8304	B2EH4 - NO			8	2000	35	50-70	16-24
	8306	B2EH6 - NO			0.7	250*	3.6	20-30	40-70
	8307	B2EH4 - 3N2			8	2000	35		16-24
2 Track Mono	8309	B2EH9 - NO			5	1000	100	37-63	21-38
	8501	B1EH1 - NO			50	20000	205	160-200	4.5-7.0
	8504	B1EH4 - NO			8	2000	35	50-70	16-24
	8506	B1EH6 - NO			0.7	250*	3.6	20-30	40-70
	8509	B1EH9 - NO			5	1000	100	37-63	21-38
4 Track Stereo	8701	B2EQ4 - NO			10	2800	40	45-60	10-15
	8702	B2EQ2 - NO			0.13	40	2	5-12	80-140
	8704	B2EQ1 - NO			80	30000	270	150-200	3-5
	8707	B2EQ2 B18	1A		0.13	40	2	5-12	80-140
	8708	B2EQ8 - NO			2.0	500*	6	20-30	30-50
Full Track Ferrite Cores	9125	PR B1EF4 - NO			1.2		3.8	55	88
	9127	PR B1EF15 - NO			0.50		3	40	125
	9128	PR B1EF17 - NO			0.12		0.7	21	270
	9130	PR B1EF17 B18	1A		0.12		0.7	21	270
2-Track Stereo Ferrite Cores	9221	PR-B2EH14 B18	1A		0.20		4	14	130
	9222	PR B2EH5 - NO			2.0		11	46	42
	9223	PR B2EH14 - NO			0.2		4	14	130
	9226	PR-B2EH4 - NO			6		50	70	25
	9227	PR B2EH15 - NO			0.5		6	24	85

\* @ 60 KHz

## STUDIO ERASE

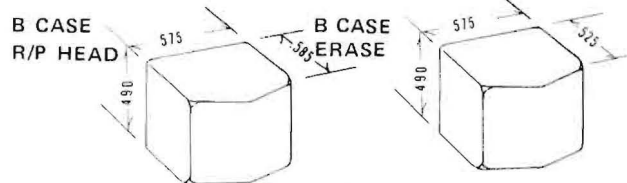
1/2" 3 Channel	9370	STE-3S4-E11	4A	0.17		2.2	12	110
1/2" 4 Channel	9470	STE-4B6-E5	4A	0.17		3	10	100
	9471	STE-4B6 - N54	5A	0.17		3	10	100
	9472	STE-4B6 - E51	6A	0.17		3	10	100
1" 8 Channel	9890	STE-8B6-E75	4A	0.17		3	10	100
1" 12 Channel	9986	STE-12U19-E76	4A	0.17		4.5	10	80
2" 16 Channel	9996	STE 16B6 E77	4A	0.17		3	10	100

Specifications subject to change without notice.

The new standard of the industry  
Hz - cycles/sec & KHz - kc/sec.

Your Local Distributor:

## DIMENSIONS AND STANDARD MOUNTINGS

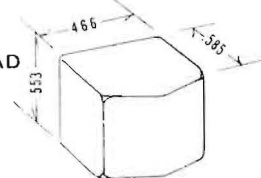


REAR-MOUNT  
ADD 50 TO  
NO-MOUNT NO.

SIDE-MOUNT  
USE QK-38

BASE-MOUNT  
USE QK-66

### G CASE R/P HEAD



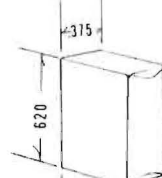
REAR-MOUNT  
ADD 50 TO  
NO-MOUNT NO.

SIDE-MOUNT  
USE QK-20

BASE-MOUNT  
USE QK-21



### S CASE



### L CASE



REAR-MOUNT  
ADD 50 TO  
NO-MOUNT

SIDE-MOUNT  
FOR "S" CASE  
USE QK-18

BASE-MOUNT  
FOR "S" CASE  
USE QK-19

## APPLICATION NOTES:

1. High impedance general purpose R/P or Play Only for vacuum tube circuits.
2. Playback Only for vacuum tube circuits.
3. Medium Impedance R/P for vacuum tube or transistor circuits.
4. Medium-Impedance Record Only for vacuum tube circuits.
5. Medium low impedance R/P for transistor circuits.
6. Low impedance R/P for transistor circuits.
7. Special low impedance Record Only for vacuum tube or transistor circuits in duplicators and professional recorders.
8. Low impedance Record Only for vacuum tube or transistor circuits.
9. Extended track head for use on super 8mm film - rear mount.
10. Alfenol extended track head with special base mount for 16 mm film strip (RCA TP66).
11. Flush - face for tape operation. Rear mount.
12. Flush - face for Moviola # 36151.
13. Relieved - face for Moviola # 36155.
14. Improved crosstalk for use on duplicating equipment and other critical applications.

- 1A Special mounting block for Scully recorders included.
- 2A Special terminal pin configuration for old 105 13 plug included. Special RCA base grind for track height included.
- 3A Not recommended for write head because of high inductance, except at low repetition rates, (1000 BPs or lower).
- 4A Special Scully base plate mounting included.
- 5A No mount with tapped 2 46 holes in base.
- 6A Special Ampex 300 type mount included.

## NORTRONICS COMPANY, INC. DISTRIBUTOR SALES DIVISION

6140 Wayzata Blvd.  
Minneapolis, Minnesota 55416 • Phone: (612) 544-0381

THIS FORM SUPERSEDES ALL PREVIOUS #7079 AND #7222 FORMS  
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# ACCESSORIES FOR TAPE RECORDERS

## PROFESSIONAL TAPE/HEAD CLEANER



NORTRONICS brand tape/head cleaner is a fluoro-carbon solvent specially formulated for professional applications — to clean completely without leaving residue. There is no silicon lubricant, allowing use on capstans and pressure rollers. Safe for plastics, rubber, metals, painted surfaces and elastomer parts. Meets all standards of MSFC No. 237A.

QM108  
QM116

8 oz. liquid can  
16 oz. spray can

## ALIGNMENT TAPE



### Alignment Tape for Reel-to-Reel Recorders.

7.5 ips, 1/4" alignment tape for full-track, two-track and four-track monophonic and stereophonic recorders. Provides zero reference, azimuth alignment and frequency response tests on a single, splice-free master recording.

### AT-200 Alignment Tape for Cassette Recorders.

A splice-free, first generation master recording which provides zero reference, azimuth alignment and frequency response tests to "DIN" standards. Each tape is tested on a precision torque analyzer. For use with all track configurations.

## MOUNTING BRACKETS



L-5 Universal type, for use with side mount heads. Made of easily worked aluminum. Includes hardware for mounting. Base Size: 13/32" W, 3/4" L.

L-6 Plated steel bracket with slotted base. Has left hand bend for installing side mount heads in locations not accepting the L-5, or where a longer, narrow base is required. Mounting hardware included. Base Size: 1-1/31" W, 11/32" L.

L-7 A right hand bend version of L-6

## TAPE GUIDE POST



TG-7 Precision guide for positioning and controlling the path of tape travel. Special chrome plated brass finish for long life. Includes a variety of mounting hardware.

## TAPE GUIDE PLATE



TG-8 Stainless steel, for use with side mount heads when space prohibits using a TG-7 guide post or when replacing side mount heads with a built-in tape guide. Can be used with L-5 or L-6 brackets. Slotted holes provide variable adjustment. Size: 21/32" H, 25/32" W.

## PRESSURE PAD STRIPS

PP-5 Pressure pad strips 5/pkg.  
PP-50 Pressure pad strips 50/pkg.

## T-70 SERIES



for printed circuit board mounting

## T-60 SERIES



for chassis mounting

## BIAS OSCILLATOR TRANSFORMERS

T70-T2 — For transistor type circuits, 50-120 KHz and 40, 80 or 120 volts, RMS.

T70-T5 — For transistor type circuits, 150-200 KHz

T70-T6 — For transistor type circuits, 230-500 KHz and 70 volts, RMS.

T60-T2 — For transistor type circuits, 60-110 KHz and 40, 80 or 120 volts, RMS.

T60-T6 — For transistor type circuits, 230-500 KHz and 70 volts, RMS.

T60-E — For vacuum tube type circuits, 40-70 KHz and 7 or 120 volts, RMS.

T60-F — For vacuum tube circuits, 60-100 KHz and 60 or 150 volts, RMS.

## UNIVERSAL MOUNTING BRACKETS



QK-74 Unique design achievement by Nortronics engineers! For general purpose use, this versatile assembly can't be equalled! A few of its features: alignment of head for height, face and azimuth is provided . . .

two TG-7 Guide Posts can be added if desired . . . or, if space does not permit, tabs for guide posts can be snapped off. Base has hole for mounting on recorder. For all Nortronics no mount record, play, record/play and combo heads except 3000 thru 3299 series and miniature heads. Will also fit special "B" case erase head. Base Size (with tabs): 1-1/16" W, 1-27/32" L. Without tabs: 1-1/16" W, 1-7/32" L.

QK-75 Identical to Quick Kit 74, plus two TG-7 Guide Posts included.

QK-77 Identical to Quick Kit 74 (including dimensions) but for no mount heads in 3000 thru 3299 Series.

QK-78 Identical to Quick Kit 74 (including dimensions) but for no mount erase heads. Does not fit special "B" case or "L" case heads.

## PIN CLIPS

TC-54 Gold plated beryllium copper (supplied in packages of 100).



## CONTACTOR HEAD

CH-3 N/B Contactor Head No/Mt.  
CH-3 R Contactor Head Rear Mt.

## REPLACEMENT MOUNTINGS FOR PROFESSIONAL EQUIPMENT\*

QK-35 Mounting hardware to replace most Brush Heads with Nortronics Heads.  
QK-76 Mounting hardware to convert many Ampex nests to Nortronics Heads.

## PIN CLIPS AND CABLE ASSEMBLIES

CC-55 — 9" Terminal clip and shielded cable assembly (red - orange) 2/pkg.

CC-56 — as above - coded (yellow - blue)

CC-57 — as above - coded (white - black)

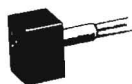
CC-58 — as above - coded (red - black)

CC-78 — 24" Terminal clip and shielded cable assembly (red - orange) 2/pkg.

CC-79 — as above - coded (yellow - blue)

CC-80 — as above - coded (white - black)

CC-81 — as above - coded (red - black)



## PLUG AND CABLE ASSEMBLIES

CC-70 — 18" plug and shielded insulated cable assembly for new model Nortronics heads (except Mono Combo).

CC-77 — 18" plug and shielded insulated cable assembly for Nortronics Mono Combo heads.

CC-110 — 4" plug and unshielded cable assembly for Mono heads.

CC-111 — 4" plug and unshielded cable assembly for Stereo heads.

## CARTRIDGE MOUNTING BRACKETS



QK-110 — 3-head cartridge mount for stereo R/P or Combo heads ("B" size). Supplied unassembled.

QK-111 — 3-head cartridge mount for Mono R/P heads ("G" size). Supplied unassembled.

QK-112 — Individual cartridge head mount bracket for stereo R/P or Combo heads ("B" size).

QK-113 — Individual cartridge head mount bracket for Mono R/P heads ("G" size).

QK-114 — 2-head cartridge mount for stereo R/P or Combo heads ("B" size) QK-114 is supplied assembled.

QK-115 — 2-head cartridge mount for Mono R/P heads ("G" size). QK-115 is supplied assembled.

QK-117 — 2-head cartridge mount for one stereo R/P head ("B" size) and one Mono head ("G" size). QK-117 is supplied assembled.

## CONVERSION KITS COMPLETELY WIRED AND ASSEMBLED

WR-35 — Converts Wollensak and Revere recorders from 2-track stereo to 4-track stereo playback only.

WR-40 — Converts all Wollensak and Later Revere Monophonic tape recorders to 4-track stereo playback only.

WR-60 — Converts all Wollensak and Later Revere Monophonic and 2-track stereo recorders to 4-track stereo record and playback.

W-2 & W-6 Converts Webcor Tape Recorders to 4-track stereo  
W-2 Conversion Kit for models 210, 2020, 2100, 2600 & 2700 Series. W-6 Conversion Kit for models 2800, 2900, and 2000 Series (except 2020).

\*Consult your Nortronics Representative for specific application, or mounting



● PROFESSIONAL HEADS (B CASE)

Head Description Hyperbolic Metal Face Laminated Cores	Nortronics Model Number (No Mount)	OEM Model Number	Head Function	Application (see notes)	1 KHz Inductance MHY	1 KHz Impedance OHMS	D.C. Resistance OHMS	Gap Spacer MILS	1 KHz Crosstalk Reduction DB	Average 7.5 IPS Constant Current R/P characteristics, using 3M190 tape, peak biased at 1 KHz and re- corded 12 db below tape saturation					NR2 Digital Read/Write Data at 7.5 IPS, using 3M777 Tape, 400 BPI		
										Peak Bias Current MA	Bias Voltage VOLTS	100 KHz RMS 100 KHz Current UA	1 KHz Output RMS MV	10 KHz/1KHz Ratio DB	Write Current MA	Read Output 200 BPI MV	Max. Read Pack. Dens. BPI
										MA	VOLTS	UA	MV	DB	MA	MV	BPI
2-Track Stereo .080 In. Track Width .160 In. C. to C. Track Spacing	8200	WP-B2H2K	Play	--	800	5000	380	0.16	55	--	--	--	3.5	0	1.3	72	1600
	8201	P-B2H8R	Record	--	10	72	27	0.5	55	1.7	6	200	--	--	9.0	12	400
	8202	WP-B2H6K	Play	--	200	1300	190	0.16	55	0.40	30	60	1.8	+1	2.7	36	1600
	8203	P-B2H3R	Record	--	30	200	72	0.5	55	0.9	15	100	--	--	4.0	20	400
	8204	P-B2H4R	Record	--	50	320	130	0.5	55	0.7	18	75	--	--	3.4	24	400
	8205	WP-B2H7K12 - 3N2	Play	--	400	2500	250	0.1	55	--	--	--	2.1	0	1.8	48	1600
	8206	P-B2H37R12 - 3N2	Record	--	3.7	25	16	0.5	55	4.3	5.5	250	--	--	14	9	400
	8208	WP-B2H7F	Play	--	450	3300	410	0.05	55	--	--	--	2.2	+2	1.8	48	1600
	8209	WP-B2H7K	Record/Play	--	400	2500	410	0.1	55	0.33	60	40	2.4	+2	1.8	48	1600
	8210	WP-B2H8K	Record/Play	--	20	150	24	0.1	55	2.4	13	135	.4	0	9.0	12	1600
	8214	P-B2H14R	Record	--	2.0	15	5.5	0.5	55	5.0	3.5	250	--	--	18	7	400
	8215*	AP-B2H14R	Record	--	2.0	15	5.5	0.5	55	5.0	3.5	250	--	--	18	7	400
	8400	WP-B1HY2K	Play	--	800	5000	380	0.16	--	--	--	--	3.5	0	1.3	72	1600
	8401	P-B1HY8R	Record	--	10	75	14	0.5	--	1.7	6	200	--	--	9.0	12	400
2-Track Mono .080 In. Track Width	8402	WP-B1HY8K	Play	--	20	150	--	0.1	--	--	--	--	0.5	0	9.0	12	1600
	8403	WP-B1HY7K	Record/Play	--	400	2500	165	0.1	--	0.33	60	40	2.4	+1	1.8	48	1600
	8404	P-B1HY4R	Record	--	50	320	70	0.5	--	0.7	18	75	--	--	3.4	24	1400
	8406	WP-B1HY7F	Play	--	500	3300	165	0.05	--	--	--	--	2.2	+3	1.8	48	1600
	8408	P-B1HY6K24	Record/Play	--	200	1300	110	0.1	--	0.4	30	60	1.8	+1	2.7	36	1600
	8409	WP-B1HY9K	Record/Play	--	10	65	20	0.1	55	3.0	60	300	.37	0	16	8	1600
	8414	P-B1HY14R	Record	--	2.0	15	5.5	0.5	--	5.0	-3.5	250	--	--	18	7	400
	8600	WP-B2Q2K	Play/Record	--	800	5000	700	0.1	55	--	--	--	2.6	+1	1.1	52	1600
	8601	WP-B2Q7F	Play	--	500	3300	390	0.05	55	--	--	--	1.8	+2	--	--	--
	8602	P-B2Q3R	Record	--	30	200	60	0.5	55	0.80	12	78	--	--	3.0	15	400
4-Track Stereo .043 In. Track Width .136 In. C. to C. Track Spacing	8603	P-B2Q4R	Record	--	50	400	160	0.5	55	0.65	15	60	--	--	2.7	18	400
	8604	P-B2Q8R	Record	--	10	70	32	0.5	55	1.3	60	140	--	--	6.2	9	400
	8607	WP-B2Q6K	Record/Play	--	200	1300	200	0.1	55	0.4	40	50	1.3	+1	2.2	26	1600
	8608	WP-B2Q7K	Record/Play	--	400	2500	390	0.1	55	0.25	60	35	1.8	+1	1.6	36	1600
	8610	WP-B2Q8K	Record/Play	--	20	140	32	0.1	50	1.5	10	100	.35	--	6.2	8	1600
	8614	P-B2Q14R	Record	--	2.0	15	6.0	0.5	55	3.8	2.5	250	--	--	13	4	400
	8619	P-B2Q18R-B18		1A	4.2	28	8.5	0.5	50	2.5	2.9	180	--	--	--	--	--
	8620	WP-B2Q2K-B18	Play	1A	1000	--	700	0.1	55	--	--	--	2.6	1	--	--	--
	9100	PR-B1F12N-B18	Play	1A	650	4000	275	0.20	--	--	--	--	5	+2	3	120	800
	9101	PR-B1F11R-B18	Record	1A	4	27	3.3	0.50	--	9	14	540	--	--	22	14	400
	9102	PR-B1F12N-NO	Play	--	650	4000	275	0.2	--	--	--	--	5	+2	3	120	800
	9103	PR-B1F8R-NO	Record	--	10	70	10	0.5	--	5	22	350	--	--	14	22	400
	9104	PR-B1F11R-NO	Record	--	4	27	3.3	0.5	--	9	14	540	--	--	22	14	400
	9105	PR-B1F4R-NO	Record	--	50	320	60	0.5	--	1	45	150	--	--	6	50	400
	9106	PR-B1F9K-NO	Play	--	10	66	15	0.1	--	--	--	--	0.5	+2	25	12	1600
Full Track .240 In. Track Width	9107	PR-B1F3R12-3N2	Record	2A	30	200	19	0.5	--	1.6	35	200	--	--	8	40	400
	9108	PR-B1F7K12-3N2	Play	2A	400	2500	195	0.1	--	--	--	--	3.5	+2	4	90	1600
	9109	PR-B1F5N-NO	Record/Play	--	5	33	2.5	0.2	--	12	16	650	0.5	+2	26	12	800
	9110	PR-B1F4N-NO	Record/Play	--	100	650	60	0.2	--	1.9	18	150	2.4	+2	6	50	800
	9111	PR-B1F6N-NO	Play	--	200	1300	170	0.2	--	--	--	--	3.3	0	5	75	800
	9112	PR-B1F3R-NO	Record	--	30	200	19	0.5	--	1.6	35	200	--	--	8	40	400
	9113	PR-B1F14R-NO	Record	--	2	13	2.4	0.5	--	12	11	900	--	--	--	--	--
	9114*	APR-B1F14R-NO	Record	--	2	13	2.4	0.5	--	12	11	900	--	--	--	--	--
	9115*	APRBIF11R-NO	Record	--	4.6	27	3.3	0.5	--	7.6	10.8	600	--	--	--	--	--
	9116*	APRBIF9K-NO	Play	--	10	66	15	0.1	--	--	--	--	--	--	--	--	--
2 Track Stereo .082 In. Track Width .156 In. C. to C. Track Spacing	9200	PR-B2H12L-B18	Play	1A	700	4400	570	0.16	50	--	--	--	3.0	+2	1.6	75	800
	9201	PR-B2H11R-B18	Record	1A	4.5	33	15	0.5	50	6	10	360	--	--	16	8	400
	9202	PR-B2H12L-NO	Play	--	700	4400	570	0.16	50	--	--	--	3.0	+2	1.6	75	800
	9203	PR-B2H8R-NO	Record	--	10	70	24	0.5	50	3.3	14	190	--	--	10	12	400
	9204	PR-B2H11R-NO	Record	--	4.5	33	15	0.5	50	6	10	360	--	--	16	8	400
	9205	PR-B2H4R-NO	Record	--	50	330	95	0.5	50	0.65	30	80	--	--	4.5	26	400
	9206	WP-B2H9K-NO	Play	--	10	70	15	0.1	50	--	--	--	0.4	+2	16	8	1600
	9209	PR-B2H5L-NO	Record/Play	--	4	28	4	0.16	50	8	12	500	0.25	+2	22	4.5	800
	9211	PR-B2H4K-NO	Record/Play	--	100	640	100	0.1	50	0.8	55	100	1.1	+2	4.5	26	1600
	9212*	APR-B2H14R-NO	Record	--	2	15	5.5	0.5	--	5.0	3.5	250	--	--	--	--	--
	9213	PR-B2H7K-NO	Record/Play	--	400	2500	300	0.1	50	5	8	250	2.0	+2	2.5	50	1600
	9214	PR-B2H14R-NO	Record	--	2	18	10	0.5	--	7.5	6	510	--	--	--	--	--
	9215*	APR-B2H9K-NO	Play	--	10	65	20	0.1	55	3	60	300	--	--	--	--	--

\*Alfenol Cores

● STUDIO HEADS

1/2" Three Channel .100 In. Tr. Wd. .185 In. C. to C.	9360	STP-3S9-E13	Play	4A	800	5000	360	0.2	55	--	--	--	3.5	+3			
	9361	STR-3S5-E12	Record	4A	4	30	9	0.5	55	5	10	400	--	--			
	9460	STP-488-E7	Play	4A	650	4000	530	0.2	55	--	--	--	3.0	+3			
1/2" Four Channel (.070) In. Track Width .130 In. C. to C. Track Spacing	9461	STR-4BN7-E14	Record	4A	4	47	40	0.5	55	5	9	380	--	--			
	9462	STP-488-N63	Play	5A	650	4000	530	0.2	55	--	--	--	3.0	+3			
	9463	STR-4BN7-N55	Record	5A	4	47	40	0.5	55	5	9	380	--	--			
	9464	STP-488-F53	Play	6A	650	4000	530	0.2	55	--	--	--	3.0	+3			
	9465	STR-4BN7-F64	Record	6A	4	47	40	0.5	55	5	9	380	--	--			
	9466	STR-4BN24-E16	Record	4A	0.1	2	.86	0.5	55	33	1.3	2200	--	--			
1" Eight Channel (.070) In. Track Width .130 In. C. to C. Track Spacing	9880	STP-888-E68	Play	4A	650	4000	530	0.2	55	--	--	--	3.0	+3			
	9881	STR-8BN7-E74	Record	4A	4	47	40	0.5	55	5	9	380	--	--			
	9883	STP-888-N66	Play	5A	650	4000	530	0.2	55	--	--	--	3.0	+3			
	9884	STR-8BN7-N65	Record	5A	4	47	40	0.5	55	5	9	380	--	--			
1" Twelve Channel .038 In. Tr. W.	9980	STP-12U21-E70	Play	4A	650	4000	720	0.2	50	--	--	--	1.7	+2			
	9981	STR-12U20-E69	Record	4A	6	45	36	0.5	50	5	10	300	--	--			
2" Sixteen Channel (.070) In. Track Width .130 In. C. to C. Track Spacing	9990	STP-16B8-E73	Play	4A	650	4000	820	0.2	55	--	--	--	3	+3			
	9992	STR-16BN7-E71	Record	4A	4	47	40	0.5	55	5	9	380	--	--			